Math 4050 Discrete Math Quiz 4
November 18, 2015
[20] 1. If $S=A_{1} \cup A_{2} \cup A_{3} \cup A_{4} \cup A_{5} \cup A_{6} \cup A_{7} \cup A_{8} \cup A_{9}$, then how many terms are in the sum $\sum\left|A_{i} \cap A_{j} \cap A_{k} \cap A_{m}\right|$ where the sum is taken over all possible quadruple intersections, $A_{i} \cap A_{j} \cap A_{k} \cap A_{m}$, of $\left\{A_{1}, A_{2}, A_{3}, A_{4}, A_{5}, A_{6}, A_{7}, A_{8}, A_{9}\right\}$ where $i, j, k, m$ are all distinct?

Math 4050 Discrete Math Quiz 4
November 18, 2015
[20] 1. If $S=A_{1} \cup A_{2} \cup A_{3} \cup A_{4} \cup A_{5} \cup A_{6} \cup A_{7} \cup A_{8} \cup A_{9}$, then how many terms are in the sum $\sum\left|A_{i} \cap A_{j} \cap A_{k} \cap A_{m}\right|$ where the sum is taken over all possible quadruple intersections, $A_{i} \cap A_{j} \cap A_{k} \cap A_{m}$, of $\left\{A_{1}, A_{2}, A_{3}, A_{4}, A_{5}, A_{6}, A_{7}, A_{8}, A_{9}\right\}$ where $i, j, k, m$ are all distinct?

